UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

VIA ELECTRONIC MAIL
RETURN RECEIPT REQUESTED

Gregory D. Muse
President and Chief Operating Officer
PennEnergy Resources, LLC
1000 Commerce Drive, Suite 400
Park Place One
Pittsburgh, PA 15275
c/o: Doug G. Mehan
dgmehan@pennenergyresources.com

Re: Clean Air Act Notice of Violation and Opportunity to Confer
PennEnergy Resources, LLC - Facilities in Pennsylvania

Dear Mr. Muse:

The U.S. Environmental Protection Agency (EPA) is issuing the enclosed Notice of Violation and Opportunity to Confer (NOVOC) to PennEnergy Resources, LLC, and its affiliated parents and subsidiaries (collectively, "PennEnergy"). The EPA is issuing this NOVOC under Section 113(a) of the Clean Air Act (the Act or CAA), 42 U.S.C. § 7413(a) based on information described in detail below that represents specific violations of the Act, implementing regulations of the Act included in the Standards of Performance for Crude Oil and Natural Gas Facilities set forth at 40 C.F.R. Part 60, Subparts OOOO and OOOOa and for alleged violations of the provisions of the Pennsylvania State Implementation Plan, including Pennsylvania permitting requirements at four of PennEnergy's natural gas production facilities located in Butler County, Pennsylvania. Section 113(a) of the Act provides the EPA with several enforcement options to resolve these violations.

By this letter, the EPA is extending to you an opportunity to advise the Agency, in person, via a conference call, or in writing, of any further information the EPA should consider with respect to the alleged violations, including but not limited to any efforts PennEnergy has taken to comply or prevent future noncompliance. The EPA acknowledges that the COVID-19 pandemic may be impacting your business. If that is the case, we will consider your specific circumstances in determining an appropriate timeline for responding to this NOVOC.

The EPA contact in this matter is Erin Grisby, Attorney-Advisor, and she may be reached at (202) 564-3701 or grisby.erin@epa.gov within ten (10) calendar days following receipt of this NOVOC if PennEnergy would like to schedule such a telephonic conference. EPA may pursue enforcement options if there is no response to this letter.

Sincerely,

Melvin, Karen

Digitally signed by Melvin, Karen
Date: 2021.08.16 13:30:10 -04'00'

Karen Melvin, Director
Enforcement and Compliance Assurance Division

Re: Clean Air Act Notice of Violation and Opportunity to Confer
PennEnergy Resources, LLC - Facilities in Pennsylvania

Enclosure: Notice of Violation and Opportunity to Confer

cc: Douglas G. Mehan, PennEnergy (dgmehan@pennenergyresources.com)
Susan Foster, PADEP (sufoster@pa.gov)
Lori McNabb, PADEP (lmcnabb@pa.gov)
Humane Zia, EPA Region III (zia.humane@epa.gov)
Bruce Augustine, EPA Region III (augustine.bruce@epa.gov)
Gregory Fried, EPA HQ (fried.gregory@epa.gov)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:	)	
	)	**NOTICE OF VIOLATION AND**
PENNENERGY RESOURCES, LLC	)	**OPPORTUNITY TO CONFER**
1000 Commerce Drive, Suite 400	)	
Park Place One	)	Docket No. CAA-21-003-007
Pittsburgh, PA 15275	)	
	)	Proceeding Pursuant to
	)	the Clean Air Act,
	)	42 U.S.C. §§ 7401-7671q
	)	

NOTICE OF VIOLATION

The EPA alleges that PennEnergy Resources, LLC and its affiliated parents and subsidiaries (collectively, "PennEnergy") has violated the Clean Air Act (CAA or the "Act"), the Standards of Performance for Crude Oil and Natural Gas Facilities under 40 C.F.R. Part 60, Subparts OOOO and OOOOa, and the Pennsylvania State Implementation Plan, including Pennsylvania permitting requirements, at four of its oil and natural gas production facilities identified in this Notice of Violation and Opportunity to Confer (NOVOC) and located in Butler County, Pennsylvania as detailed in the paragraphs that follow.

I. STATUTORY AND REGULATORY BACKGROUND

1. The purpose of the Clean Air Act is to protect and enhance the quality of the nation's air resources so as to promote the public health and welfare and the productive capacity of its population. 42 U.S.C. § 7401(b)(l).

National Ambient Air Quality Standards

2. Section 108(a) of the CAA requires the Administrator of the EPA to identify and prepare air quality criteria for each air pollutant, emissions of which may endanger public health or welfare, and the presence of which results from numerous or diverse mobile or stationary sources. 42 U.S.C. § 7408(a).

3. These pollutants are known as "criteria pollutants." 42 U.S.C. § 7408.

4. For each "criteria" pollutant, Section 109 of the Act requires the EPA to promulgate national ambient air quality standards (NAAQS) requisite to protect the public health and welfare. 42 U.S.C. § 7409.

5. Pursuant to Sections 108 and 109 of the Act the EPA has identified sulfur dioxide (SO_2), oxides of nitrogen (NO_x), and ground-level ozone, among others, as criteria pollutants, and has promulgated NAAQS for these pollutants. 42 U.S.C. §§ 7408, 7409.

6. Certain precursors to ozone formation, such as volatile organic compounds (VOCs) and NO_x, are regulated as part of the air quality standards for ozone itself. 40 C.F.R. §§ 50.6 to 50.11. Ozone is not emitted directly from sources of air pollution. Ozone is a photochemical oxidant, formed when VOCs and NO_x react in the presence of sunlight. NO_x and VOCs are called "ozone

precursors." Sources that emit ozone precursors are regulated to reduce ground-level ozone. 62 Fed. Reg. 38,856 (July 18, 1997).

7. Section 107(d) of the Act requires that each state designate the air quality of all areas within its boundaries as either meeting or not meeting the NAAQS with respect to each criteria pollutant or as unclassifiable due to insufficient data. 42 U.S.C. § 7407(d).

8. An area that meets the NAAQS for a particular criteria pollutant is termed an "attainment" area with respect to that pollutant.

9. An area that does not meet the NAAQS for a particular criteria pollutant is termed a "nonattainment" area with respect to that pollutant.

10. Section 110(a) of the Act, 42 U.S.C. § 7410(a), requires each state to adopt and submit to the Administrator of the EPA for approval a plan which provides for implementation, maintenance, and enforcement, for each promulgated NAAQS, in each air quality control region (or portion thereof) within the state, known as a State Implementation Plan (SIP).

11. Each SIP must include enforceable emission limitations, among other control measures, and regulate the modification and construction of any stationary source within the areas covered by the plan as necessary to assure that NAAQS are attained and maintained. 42 U.S.C. § 7410(a)(2)(A).

12. Each SIP must require permits for the construction and operation of new or modified major stationary sources anywhere in the nonattainment area, which, among other things, require the proposed source to comply with the lowest achievable emission rate. 42 U.S.C. §§ 7502(c)(5), 7502(c)(6), 7503(a)(2).

13. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), prohibits the operation of a major source, or a source required to have a permit under the Plan Requirements for Nonattainment Areas of Part D of Title I of the Clean Air Act, 42 U.S.C. §§ 7501-7515, except for in compliance with a permit issued by a permitting authority under Title V of the CAA.

14. Upon EPA approval, SIP requirements are federally enforceable under Section 113. 42 U.S.C. § 7413(a) and (b).

15. Any permit limitation or condition contained within a permit issued under an EPA-approved program that is incorporated into a SIP is a requirement of the SIP and is federally enforceable under Section 113. 40 C.F.R. § 52.23.

16. Section 113(a)(1) and (3) of the CAA, 42 U.S.C. § 7413(a)(1) and (3), provides that whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of, any requirement or prohibition of an applicable implementation plan or other requirement or prohibition of the Act, the Administrator may issue an order requiring such person to comply with the requirement or prohibition of the plan or Act, issue an administrative penalty order in accordance with Section 113(d) of the Act, or bring a civil action in accordance with Section 113(b) of the Act for injunctive relief or civil penalties.

17. Pursuant to section 114(a) of the CAA, 42 U.S.C. § 7414(a), the Administrator of the EPA is authorized to require any person who owns or operates an emissions source to establish and maintain records, make reports, sample emissions (in accordance with the procedures and methods that the Administrator shall prescribe) and provide such other information as he may reasonably require for the purpose of, among other things, determining whether any person is in violation of the CAA.

18. The facilities owned and operated by PennEnergy at issue in this NOVOC are located in Butler County, Pennsylvania. At all times relevant to this NOVOC, Pennsylvania has been located within the Ozone Transport Region, CAA § 184(a), 42 U.S.C. § 7511c(a), wherein any stationary source that emits or has the potential to emit at least 50 tons per year (tpy) of VOCs is considered a "major stationary source" and is subject to the requirements for major sources as if the source was in a moderate ozone nonattainment area. *See* § 184(b)(2), 42 U.S.C. § 7511c(b)(2). The CAA requirements for moderate ozone nonattainment areas are at § 182(b), 42 U.S.C. § 7511a(b), and include, among other things, a requirement that the SIP have permitting requirements in accordance with CAA Sections 172(c)(5) (on nonattainment new source review permits) and 173 (on emission offsets). 42 U.S.C. §§ 7502(c)(5), 7503(c). Both NO_x and VOC are precursors of ozone and are therefore regulated to reduce ozone. *See* CAA § 182(f), 42 U.S.C. § 7511a(f).

Pennsylvania State Implementation Plan (SIP) and Title V Authority

19. Pursuant to Sections 4(1) and 5 of the Air Pollution Control Act (APCA), 35 P.S. §§ 4004 and 4005, and Section 110 of the CAA, the Commonwealth of Pennsylvania adopted regulations that comprise the State Implementation Plan for Pennsylvania (the "PA SIP"). The PA SIP regulations as approved by the EPA are set forth in 40 C.F.R. § 52.2020(c).

20. The PA SIP regulations governing construction, modification, reactivation and operations permitting of a stationary source are currently codified at 25 Pa. Code § 127. Chapter 127 was included in the PA SIP approved by the EPA on July 30, 1996. 61 Fed. Reg. 39,597 (July 30, 1996). Subsequent revisions to the PA SIP regulations governing construction, modification, reactivation, and operation of sources plan approval requirements were approved by EPA on October 5, 2012. 77 Fed. Reg. 60,910 (October 5, 2012).

21. The Pennsylvania Title V operating permit program was approved by EPA on July 30, 1996. *See* 61 Fed. Reg. 39,597 (July 30, 1996). These regulations are currently codified at 25 Pa. Code §§ 127.401-127.464 and 127.501-127.543.

22. Section 3 of the APCA, 35 P.S. § 4003, pursuant to which Pennsylvania adopted its SIP and referenced by 25 Pa. Code §§ 121 (definitions) and 127 (on construction, modification, reactivation and operation of sources), sets forth the following definitions for purposes of the requirements thereunder:

    a. "Air cleaning device" means "[a]n article, chemical, machine, equipment or other contrivance, the use of which may eliminate, reduce or control the emission of air contaminants into the atmosphere."

b. "Air contaminant" means "smoke, dust, fume, gas, odor, mist, radioactive substance, vapor, pollen or any combination thereof."

c. "Air contamination" means "the presence in the outdoor atmosphere of an air contaminant which contributes to any condition of air pollution."

d. "Air contamination source" means "any place, facility or equipment, stationary or mobile, at, from or by reason of which there is emitted into the outdoor atmosphere any air contaminant."

e. "Department" means "The Department of Environmental Resources of the Commonwealth." The Department of Environmental Resources was abolished, and its functions were transferred to the Department of Conservation and Natural Resources and the Department of Environmental Protection in 1995.

f. "Stationary air contamination source" means "[a]ny air contamination source other than that which, when operated, moves in a given direction under its own power."

g. "Person" means "any individual, public or private corporation for profit or not for profit, association, partnership, firm, trust, estate, department, board, bureau or agency of the Commonwealth or the Federal Government, political subdivision, municipality, district, authority or any other legal entity whatsoever which is recognized by law as the subject of rights and duties."

h. "Plan approval" means "the written approval from [the Pennsylvania Department of the Environment] which authorizes a person to construct, assemble, install or modify any stationary air contamination source or install thereon any air pollution control equipment or device."

23. 25 Pa. Code § 1.1, referenced by 25 Pa. Code § 127 (on construction, modification, reactivation and operation of sources), sets forth the following definition for purposes of the requirements thereunder:

> "Department" means "The Department of Environmental Protection of this Commonwealth."

24. 25 Pa. Code § 121.1, referenced by 25 Pa. Code § 127 (on construction, modification, reactivation and operation of sources), sets forth the following definitions for purposes of requirements thereunder and is included in the approved PA SIP:

a. "Air pollution" means "[t]he presence in the outdoor atmosphere of any form of contaminant, including, but not limited to, the discharging from stacks, chimneys, openings, buildings, structures, open fires, vehicles, processes or any other source of any smoke, soot, fly ash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, vapors, odors, toxic, hazardous or radioactive substances, waste or other matter in a place, manner or concentration inimical or which may be inimical to public health, safety or welfare or which is or may be injurious to human, plant or animal life or to property or which unreasonably interferes with the comfortable enjoyment of life or property."

b. "Construction" means "[t]o physically initiate assemblage, installation, erection or fabrication of an air contamination source or an air pollution control device, including building supports and foundations and other support functions."

c. "Facility" means "[a]n air contamination source or a combination of air contamination sources located on one or more contiguous or adjacent properties and which is owned or operated by the same person under common control."

d. "LAER" or "Lowest Achievable Emission Rate" means "(i) The rate of emissions based on the following, whichever is more stringent: (A) The most stringent emission limitation which is contained in the implementation plan of a state for the class or category of source unless the owner or operator of the proposed source demonstrates that the limitations are not achievable[;] (B) The most stringent emission limitation which is achieved in practice by the class or category of source. (ii) The application of the term may not allow a new or proposed modified source to emit a pollutant in excess of the amount allowable under an applicable new source standard of performance."

e. "Major facility" means "[a] facility which emits or has the potential to emit 100 TPY or more of a regulated NSR pollutant, except that lower emissions thresholds apply as follows: . . . Fifty TPY of VOCs in an area within an ozone transport region except for a severe or extreme nonattainment area for ozone."

f. "Modification" means "[a] physical change in a source or a change in the method of operation of a source which would increase the amount of an air contaminant emitted by the source or which would result in the emission of an air contaminant not previously emitted, except that routine maintenance, repair and replacement are not considered physical changes. An increase in the hours of operation is not considered a modification if the increase in the hours of operation has been authorized in a way that is Federally enforceable or legally and practicably enforceable by an operating permit condition."

g. "Potential emission rate" means "[t]he total weight rate at which a particular air contaminant, in the absence of air cleaning devices, would be emitted per unit of time from an air contamination source when the source is operated at its rated capacity."

h. "Potential to emit" or "PTE" means "[t]he maximum capacity of a source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and limitations on hours of operation or on the type or amount of material combusted, stored or processed shall be treated as part of the design if the limitation or the effect it would have on emissions is Federally enforceable or legally and practicably enforceable by an operating permit condition. The term does not include secondary emission from an offsite facility."

i. "Source" means "[a]n air contamination source."

j. "Title V facility" means, in relevant part, "[a] stationary air contamination source or a group of stationary sources, located on one or more contiguous or adjacent properties, which are under common control of the same person (or persons under common control),

belonging to a single major industrial grouping . . ., including: For ozone transport regions established under [S]ection 184 of the Clean Air Act (42 U.S.C.A. § 7511c), sources with the potential to emit 50 TPY or more, of VOCs or 100 TPY or more of oxides of NO_x."

25. The source list established pursuant to 25 Pa. Code § 127.14(d) incorporate the following definitions from 58 PA.C.S. § 3203 for purposes of setting forth criteria for exemption under 25 Pa. Code § 127.14(a)(8) and (9):

    a. "Unconventional gas well" means "[a] bore hole drilled or being drilled for the purpose of or to be used for the production of natural gas from an unconventional formation."

    b. "Unconventional formation" means "[a] geological shale formation existing below the base of the Elk Sandstone or its geologic equivalent stratigraphic interval where natural gas generally cannot be produced at economic flow rates or in economic volumes except by vertical or horizontal well bores stimulated by hydraulic fracture treatments or by using multilateral well bores or other techniques to expose more of the formation to the well bore."

Pennsylvania's Air Permitting Requirements

26. The requirements of Subchapter E of Chapter 127 of Title 25 of the Pennsylvania Code, 25 Pa. Code §§ 127.201-127.218, Pennsylvania's New Source Review (NSR) permit program, apply to a facility located in an attainment area for ozone and within an ozone transport region that emits or has the potential to emit at least 50 tpy of VOCs or 100 tpy of NO_x. 25 Pa. Code § 127.201(a), (c), (e). A facility within either an unclassifiable/attainment area for ozone or within a marginal or incomplete data nonattainment area for ozone or within a basic nonattainment area for ozone and located within an ozone transport region will be considered a major facility and shall be subject to the requirements applicable to a major facility located in a moderate nonattainment area. 25 Pa. Code § 127.201(c).

27. NSR special permitting requirements and emissions increase offsets apply to the construction of a new major facility or modification at an existing major facility located in a nonattainment area, an ozone transport region or an attainment or unclassifiable area which impacts a nonattainment area in excess of certain significance levels; these special requirements must be met for continued operations of such facilities. 25 Pa. Code §§ 127.203(a), 127.205 (setting forth special permit requirements to comply with LAER and offset PTE with credits); *see* 25 Pa. Code §§ 127.201(d), (e) (applying the more stringent standard in the event of inconsistencies between rules), 127.204 (explaining PTE shall be determined by aggregating the emissions or emissions increases from contiguous or adjacent properties under the common control of a person or entity, to include fugitive emissions), and 127.210 (relating to offset ratios).

28. Subchapter F of Chapter 127, 25 Pa. Code §§ 127.401-127.464, prohibits a person from operating a stationary air contamination source unless the Pennsylvania Department of Environmental Protection (hereinafter "PADEP") has issued to the person a permit to operate the source in response to a written application for a permit submitted on forms and containing the information PADEP may prescribe. 25 Pa. Code § 127.402(a); *see* 25 Pa. Code § 127.443(a); 35 P.S. § 4006.1(b).

29. Subchapter G of Chapter 127, 25 Pa. Code §§ 127.501-127.543, describes additional operating permit program requirements applicable to Title V facilities which are in addition to the operating permit requirements in Subchapter F. 25 Pa. Code §§ 127.501, 502, 503.

30. Subchapters E and F of Chapter 127 of Title 25 of the Pennsylvania Code are in the approved PA SIP. Subchapter G of Chapter 127 was approved separately by EPA and is not in the PA SIP.

PADEP's Plan Approval and Operating Permit Exemptions

31. Pursuant to Section 5(a)(9) of the APCA, 35 P.S. § 4005(a)(9), PADEP adopted 25 Pa. Code § 127.14(a)(8), exempting from plan approval requirements the construction, modification, reactivation or installation of certain sources and classes of sources determined to be of minor significance by PADEP.

32. Effective August 8, 2018, in accordance with 25 Pa. Code § 127.14(d), PADEP published an updated list of sources and classes of sources determined in accordance with section 127.14(a)(8) to be exempt from the plan approval requirements of 25 Pa. Code §§ 127.11, 127.12. Pa. Dept. of Env't Prot., *Air Quality Permit Exemptions*, 48 Pa. Bulletin 23, 3490 (June 9, 2018); PADEP Bureau of Air Quality, Doc. No. 275-2101-003 (Aug. 8, 2018) ("Exemptions List"). The list includes qualification criteria for each exemption category. Listed sources that demonstrate compliance with the relevant exemption criteria may claim exemption from the PA SIP's plan approval requirements.

Category 38(b) Exemption Criteria for Unconventional Wells and Associated Equipment

33. Plan approval exemption 38(b) ("E38(b)") provides the exemption criteria for air contamination sources constructed, reconstructed or modified on or after August 10, 2013, but before August 8, 2018, and any existing oil and gas exploration, development, and production facilities and associated equipment and operations seeking authorization to operate without a plan approval. Exemptions List at 6.

34. E38(b) specifies that the owner or operator will demonstrate compliance with the exemption criteria to PADEP using any generally accepted model or calculation methodology within 180 days after the well completion or installation of a source. Exemptions List at 8.

35. E38(b) exempts unconventional wells from plan approval requirements if the certain exemption criteria are met, Exemptions List at 6-8; however, a Title V operating permit is needed by all facilities that have a PTE exceeding the levels described in the definition of "Title V facility." Exemptions List at 14-15.

NSPS 40 C.F.R. Part 60, Subparts OOOO and OOOOa

36. Pursuant to Section 111 of the CAA, any owner or operator of any new source must operate such source in accordance with applicable New Source Performance Standards (NSPS). 42 U.S.C. § 7411.

37. Effective October 15, 2012, EPA promulgated the "Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution," found at 40 C.F.R. Part 60, Subpart OOOO, 77 Fed. Reg. 49,492 (August 16, 2012), as amended, and effective August 2, 2016, EPA

promulgated the additional standards for storage vessels found at 40 C.F.R. Part 60, Subpart OOOOa, 81 Fed. Reg. 35,824 (June 3, 2016); as amended[1].

38. 40 C.F.R. Part 60, Subpart OOOO, applies to storage vessel affected facilities that commence construction, modification, or reconstruction after August 23, 2011, and on or before September 18, 2015. 40 C.F.R. § 60.5365. 40 C.F.R. Part 60, Subpart OOOOa, alternatively, applies to storage vessel affected facilities that commence construction, modification, or reconstruction after September 18, 2015. 40 C.F.R. § 60.5365a. The subparts will be referred to hereinafter as "NSPS Subparts OOOO and OOOOa."

39. NSPS Subpart OOOO specifies that a "storage vessel affected facility" is a single storage vessel in the oil and natural gas production segment, natural gas processing segment, or natural gas transmission and storage segment, with the potential for VOC emissions equal to or greater than 6 tpy. 40 C.F.R. § 60.5365(e). NSPS Subpart OOOOa specifies that a "storage vessel affected facility" is a single storage vessel with the potential for VOC emissions equal to or greater than 6 tpy. 40 C.F.R. § 60.5365a(e).

40. NSPS Subparts OOOO and OOOOa define "storage vessel" as a tank or other vessel that contains an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water, and that is constructed primarily of non-earthen materials (such as wood, concrete, steel, fiberglass, or plastic), which provide structural support. 40 C.F.R. §§ 60.5430 and 60.5430a.

NSPS Subparts OOOO and OOOOa Emissions Determination of 40 C.F.R. §§ 60.5365(e) and 60.5365a(e)

41. In order to determine whether a storage vessel is a storage vessel affected facility that is subject to the requirements of NSPS Subpart OOOO or OOOOa, the owner or operator of the storage vessel must perform an emissions determination of potential VOC emissions, in accordance with the schedule specified in each respective regulation, using a generally accepted model or calculation methodology, based on the maximum average daily throughput determined for a 30-day period of production. 40 C.F.R. §§ 60.5365(e) and 60.5365a(e).

42. NSPS Subparts OOOO and OOOOa provide that the emissions determination may take into account requirements under a legally and practically enforceable limit in an operating permit or other requirement established under a federal, state, local or tribal authority. 40 C.F.R. §§ 60.5365(e) and 60.5365a(e).

43. NSPS Subparts OOOO and OOOOa state that for an owner or operator performing the emission determination for storage vessels that are not subject to a legally and practically enforceable limit in an operating permit or other requirement established under federal, state, local or tribal authority, any vapor from the storage vessel that is recovered and routed to a process through a vapor recovery unit (VRU) designed and operated as specified in 40 C.F.R. §§ 60.5365(e)(3) and 60.5365a(e)(3), is not required to be included in the determination of VOC PTE for the purpose

[1] EPA's most recent amendments to NSPS Subpart OOOOa apply to storage vessels that commence construction, reconstruction, or modification after the effective date of November 16, 2020. Oil and Natural Gas Sector: Emissions for Standards for New, Reconstructed, and Modified Sources Reconsideration, 85 Fed. Reg. 57,398, 57,412 (Sept. 15, 2020).

of determining affected facility status, provided that the owner and operator complies with the following:

a. The owner and operator must meet the cover requirements specified in §§ 60.5411(b) and 60.5411a(b). 40 C.F.R. §§ 60.5365(e)(3)(i) and 60.5365a(e)(3)(i).

b. The owner and operator must meet the closed vent system requirements specified in §§ 60.5411(c) and 60.5411a(c) and (d). 40 C.F.R. §§ 60.5365(e)(3)(ii) and 60.5365a(e)(3)(ii).

c. The owner and operator must maintain records that document compliance with the two requirements listed above. 40 C.F.R. §§ 60.5365(e)(3)(iii) and 60.5365a(e)(3)(iii).

44. The owner and operator must determine the storage vessel's PTE within 30 days of the removal of apparatus that recovers and routes vapor to a process, or operation that is inconsistent with 40 C.F.R. § 60.5365(e)(3)(i) and (ii) or 60.5365a(e)(3)(i) and (ii). 40 C.F.R. §§ 60.5365(e)(3)(iv) and 60.5365a(e)(3)(iv).

NSPS Subparts OOOO and OOOOa Storage Vessel Affected Facilities Standards of Good Air Pollution Control Practices of 40 C.F.R. §§ 60.5370(b) and 60.5370a(b)

45. NSPS Subparts OOOO and OOOOa require that, at all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. 40 C.F.R. §§ 60.5370(b) and 60.5370a(b).

NSPS Subparts OOOO and OOOOa Storage Vessel Affected Facilities VOC Standards of 40 C.F.R. §§ 60.5395 and 60.5395a

46. NSPS Subparts OOOO and OOOOa require owners and operators of storage vessel affected facilities to reduce emissions by 95.0 percent according to a specified schedule. 40 C.F.R. §§ 60.5395(d) and 60.5395a(a)(2).

47. NSPS Subparts OOOO and OOOOa require that, if the owner or operator of a storage vessel affected facility uses a control device to reduce VOC emissions from a storage vessel affected facility, the owner or operator must equip the storage vessel with a cover connected to a closed vent system and route emissions to a control device or process and meet the requirements of 40 C.F.R. §§ 60.5395(e) and 60.5395a(b), specified below:

a. The cover shall meet the requirements of 40 C.F.R. §§ 60.5411(b) and 60.5411a(b);

b. The closed vent system shall meet the requirements of 40 C.F.R. §§ 60.5411(c), 60.5411a(c), and 60.541la(d);

c. The control device shall meet the requirements of 40 C.F.R. §§ 60.5412(c), 60.5412(d), 60.5412a(c), and 60.5412a(d); and,

d. NSPS Subparts OOOO and OOOOa require owners and operators of storage vessel affected facilities to demonstrate continuous compliance as specified in 40 C.F.R. §§ 60.5415(e)(3) and 60.5415a(e)(3). 40 C.F.R. §§ 60.5395(g)(2) and 60.5395a(d)(2).

NSPS Subparts OOOO and OOOOa Initial Compliance Period of 40 C.F.R. §§ 60.5410 and 60.5410a

48. NSPS Subparts OOOO and OOOOa establish an initial compliance period for each storage vessel affected facility. 40 C.F.R. §§ 60.5410 and 60.5410a.

49. NSPS Subpart OOOO specifies the initial compliance period begins on October 15, 2012, or upon initial startup, whichever is later. The period ends no later than one year after the initial startup date or no later than one year after October 15, 2012. 40 C.F.R. § 60.5410.

50. NSPS Subpart OOOOa specifies the initial compliance period begins on August 2, 2016, or upon initial startup, whichever is later. The period ends no later than one year after the initial startup date or no later than one year after August 2, 2016. 40 C.F.R. § 60.5410a.

NSPS Subparts OOOO and OOOOa Cover Requirements of 40 C.F.R. §§ 60.5411(b) and 60.5411a(b)

51. NSPS Subparts OOOO and OOOOa require that owners and operators of storage vessel affected facilities or storage vessels following the VRU provisions of 40 C.F.R. § 60.5365(e)(3) or 60.5365a(e)(3) in their emission determination comply with the cover requirements of 40 C.F.R. §§ 60.5411(b) and 60.5411a(b).

52. The cover and all openings on the cover (e.g., access hatches, and pressure relief valves) shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel. 40 C.F.R. §§ 60.5411(b)(l) and 60.5411a(b)(l).

53. Each cover opening shall be secured in a closed, sealed position whenever material is in the unit, except during times when it is necessary to use an opening as provided below. 40 C.F.R. §§ 60.5411(b)(2) and 60.5411a(b)(2).

    a. To add material to or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);

    b. To inspect or sample the material in the unit;

    c. To inspect, maintain, repair, or replace equipment located inside the unit; or

    d. To vent liquids, gases, or fumes from the unit through a closed-vent system designed and operated in accordance with the requirements of NSPS Subpart OOOO at 40 C.F.R. § 60.5411(c) and NSPS Subpart OOOOa at 40 C.F.R. §§ 60.5411a(c) and 60.5411a(d).

54. Each storage vessel thief hatch shall be equipped, maintained, and operated with a weighted mechanism or equivalent to ensure that the lid remains properly seated and sealed under normal operating conditions. The gasket material for the hatch must be selected based on composition of

the fluid in the storage vessel and weather conditions. 40 C.F.R. §§ 60.5411(b)(3) and 60.5411a(b)(3).

NSPS Subparts OOOO and OOOOa Closed Vent System Requirements of 40 C.F.R. § 60.5411(c), and 40 C.F.R. §§ 60.5411a(c) and 60.5411a(d)

55. NSPS Subparts OOOO and OOOOa require that owners and operators of storage vessel affected facilities or storage vessels following the VRU provisions of 40 C.F.R. §§ 60.5365(e)(3) and 60.5365a(e)(3) in their emission determination comply with the closed vent system requirements of NSPS Subpart OOOO at 40 C.F.R. § 60.5411(c) and of NSPS Subpart OOOOa at 40 C.F.R. §§ 60.5411a(c) and 60.5411a(d).

56. Owners and operators of storage vessel affected facilities must design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements specified in 40 C.F.R. §§ 60.5412(d) and 60.5412a(d), or to a process. 40 C.F.R. §§ 60.5411(c)(l) and 60.5411a(c)(l).

57. Pursuant to NSPS Subparts OOOO and OOOOa, owners and operators of storage vessel affected facilities must design and operate a closed vent system with no detectable emissions, as determined using olfactory, visual, and auditory (OVA) inspections. 40 C.F.R. §§ 60.5411(c)(2) and 60.5411a(c)(2).

58. Pursuant to NSPS Subpart OOOOa, owners and operators of storage vessels affected facilities for which construction, modification, or reconstruction commenced after September 18, 2015 must conduct an assessment that the required closed vent system is of sufficient design and capacity to ensure that all emissions from the storage vessel are routed to the control device and that the control device is of sufficient design and capacity to accommodate all emissions from the affected facility and have it certified by a qualified professional engineer in accordance with specific regulatory requirements and provisions. 40 C.F.R. § 60.5411a(d).

NSPS Subparts OOOO and OOOOa Control Device Requirements of 40 C.F.R. §§ 60.5412(d) and 60.5412a(d)

59. NSPS Subparts OOOO and OOOOa require owners and operators of storage vessel affected facilities to meet the following specific requirements listed in 40 C.F.R. §§ 60.5412(d) and 60.5412a(d) for each control device used to meet the emission reduction standard in 40 C.F.R. §§ 60.5395(d) and 60.5395a(a)(2):

    a. For each combustion control device, an owner or operator of a storage vessel affected facility must design and operate the combustion control device in accordance with certain performance requirements set forth in 40 C.F.R. §§ 60.5412(d) and 60.5412a(d);

    b. For each vapor recovery device or other non-destructive control device, an owner or operator of a storage vessel affected facility must design and operate the device to reduce mass content of VOC by 95 percent, 40 C.F.R. §§ 60.5412(d)(2) and 60.5412a(d)(2);

c. Owners and operators of storage vessel affected facilities must design and operate a flare in accordance with the requirements of 40 C.F.R. § 60.18(b), 40 C.F.R. §§ 60.5425, 60.5425a, 60.5412a(d)(3); and

d. Each control device must be in operation at all times when gases, vapors, and fumes are vented from the storage vessel affected facility through the closed vent system to the control device. 40 C.F.R. §§ 60.5412(d)(3) and 60.5412a(d)(4).

NSPS Subparts OOOO and OOOOa Continuous Compliance Requirements of 40 C.F.R. §§ 60.5415(e) and 60.5415a(e)

60. NSPS Subparts OOOO and OOOOa require owners and operators of storage vessel affected facilities that install a control device to meet the emission reduction standard of 40 C.F.R. §§ 60.5395(d) and 60.5395a(a)(2) to demonstrate continuous compliance with the following requirements specified in 40 C.F.R §§ 60.5415(e) and 60.5415a(e):

a. Reduce VOC emissions by 95.0 percent as specified in 40 C.F.R. §§ 60.5395(d) and 60.5395a(a)(2); and

b. Demonstrate continuous compliance with 40 C.F.R. §§ 60.5416(c) and 60.5416a(c) for each cover and closed vent system; 40 C.F.R. §§ 60.5417(h) and 60.5417a(h) for each control device; and 40 C.F.R. § 60.5411(c)(2) and 40 C.F.R. §§ 60.5411a(c)(2) and (3) for each closed vent system that routes emissions to a process.

NSPS Subparts OOOO and OOOOa Continuous Cover and Closed Vent System Inspection and Monitoring Requirements of 40 C.F.R. §§ 60.5416(c) and 60.5416a(c)

61. NSPS Subparts OOOO and OOOOa require owners and operators of storage vessel affected facilities that use a control device or route emissions to a process to comply with the following specific closed vent system and cover requirements specified in 40 C.F.R. §§ 60.5416(c) and 60.5416a(c):

a. Inspect each closed vent system at least once every calendar month as specified in 40 C.F.R. §§ 60.5416(c)(1) and 60.5416a(c)(1).

b. Inspect each cover at least once every calendar month as specified in 40 C.F.R. §§ 60.5416(c)(2) and 60.5416a(c)(2).

c. Meet the requirements for each bypass device as specified in 40 C.F.R. §§ 60.5416(c)(3) and 60.5416a(c)(3), except as provided in 40 C.F.R §§ 60.5411(c)(3)(ii) and 60.5411a(c)(3)(ii).

d. Repair a leak or defect as soon as practicable after a leak or defect is detected with the first repair attempt made within 5 days, the repair completed within 30 days after detection, and grease or another applicable substance applied to deteriorating or cracked gaskets to improve the seal while awaiting repair as required by 40 C.F.R. §§ 60.5416(c)(4) and 60.5416a(c)(4), unless a delay to complete the repair by the end of the next shutdown is permitted under 40 C.F.R. § 60.5416(c)(5) or 60.5416a(c)(5) due to technical infeasibility without a shutdown or a determination that emissions resulting

from immediate repair would be greater than the fugitive emissions likely to result from delay of repair.

NSPS Subparts OOOO and OOOOa Continuous Control Device Monitoring Requirements of 40 C.F.R. §§ 60.5417(h) and 60.5417a(h)

62. NSPS Subparts OOOO and OOOOa require owners and operators of storage vessel affected facilities that use a control device to meet the emission reduction standard in 40 C.F.R. §§ 60.5395(d)(1) and 60.5395a(a)(2) to comply with the continuous compliance requirements specified in 40 C.F.R. §§ 60.5417(h) and 60.5417a(h).

63. NSPS Subparts OOOO and OOOOa require owners and operators to operate each control device following the manufacturer's written operating instructions, procedures, and maintenance schedule to ensure good air pollution controls for minimizing emissions. Records must be made available for inspection as specified in 40 C.F.R §§ 60.5420(c)(13) and 60.5420a(c)(13). 40 C.F.R. §§ 60.5417(h)(3) and 60.5417a(h)(3).

NSPS Subparts OOOO and OOOOa Notification, Reporting, and Recordkeeping Requirements of 40 C.F.R. §§ 60.5420 and 60.5420a

64. NSPS Subparts OOOO and OOOOa require notification, reporting, and recordkeeping for affected facilities pursuant to 40 C.F.R. §§ 60.5420 and 60.5420a. The provisions relevant to this NOVOC are specified below, however, other requirements may apply.

65. NSPS Subparts OOOO and OOOOa establish that initial annual reports are due no later than 90 days after the end of the initial compliance period and that subsequent reports are due no later than the same date each year as the initial annual report. 40 C.F.R. §§ 60.5420(b) and 60.5420a(b). The initial compliance period for NSPS Subpart OOOO began on October 15, 2012, or begins upon initial startup, whichever is later, and ends no later than one year after the initial startup date for an affected facility, or no later than one year after October 15, 2012. 40 C.F.R. § 60.5410. The initial compliance period for NSPS Subpart OOOOa began on August 2, 2016, or begins upon initial startup, whichever is later, and ends no later than one year after the initial startup date for an affected facility, or no later than one year after August 2, 2016. 40 C.F.R. § 60.5410a.

66. NSPS Subparts OOOO and OOOOa specify that annual reports for affected facilities must contain information including the company name, the US Well ID, the address or location, identification, beginning and ending dates of the reporting period, and a certification of truth, accuracy, and completeness. 40 C.F.R. §§ 60.5420(b)(l) and 60.5420a(b)(l).

67. NSPS Subparts OOOO and OOOOa require that annual reports for storage vessel affected facilities must include the identification and location of each storage vessel affected facility constructed, modified, or reconstructed during the reporting period; documentation of the VOC emission rate determination; records of deviations; a statement indicating requirements have been met; and the identification of each storage vessel affected facility that is removed from service or returned to service during the reporting period. 40 C.F.R. §§ 60.5420(b)(6) and 60.5420a(b)(6).

68. NSPS Subpart OOOO requires that all reports, except for well completion notifications subject to requirements of 40 C.F.R. § 60.5420(a)(2)(i), must be sent to the Administrator at the appropriate address listed in 40 C.F.R. § 60.4. The report may be requested by the Administrator or the delegated authority in any form suitable for the specific case. 40 C.F.R. § 60.5420(b)(7)(ii).

69. NSPS Subpart OOOOa requires that all reports are submitted to the EPA via the Compliance and Emissions Date Reporting Interface (CEDRI). The reports must be in the appropriate electronic form and appropriate format in CEDRI. If the reporting form is not available in CEDRI at the time the report is due, the report must be submitted to the Administrator at the appropriate address listed in 40 C.F.R. § 60.4. Once the form has been available for at least 90 calendar days, all subsequent reports must be submitted via CEDRI. The reports must be submitted by the deadlines, regardless of the method in which they are submitted. 40 C.F.R. § 60.5420a(b)(11).

70. All information required to be submitted to the EPA pursuant to 40 C.F.R. Part 60 must also be submitted to the appropriate state agency to which authority has been delegated. 40 C.F.R. § 60.4(b).

71. NSPS Subpart OOOOa requires that owners and operators submit the certification signed by the qualified professional engineer according to 40 C.F.R. § 60.5411a(d) for each closed vent system routing to a control device or process. 40 C.F.R. § 60.5420a(b)(12).

72. Owners and operators must maintain the records identified in NSPS Subpart OOOO at 40 C.F.R. §§ 60.7(f) and 60.5420(c)(l)-(14) and NSPS Subpart OOOOa at 40 C.F.R. §§ 60.7(f) and 60.5420a(c)(l)-(17). Records must be maintained either onsite or at the nearest local field office for at least five years. 40 C.F.R. §§ 60.5420(c) and 60.5420a(c).

II. FACTUAL BACKGROUND

73. PennEnergy is a natural gas extraction and production company, headquartered at 1000 Commerce Drive, Suite 400, Park Place One, Pittsburgh, PA 15275 and incorporated in the state of Delaware and registered to transact business as a limited liability company in the Commonwealth of Pennsylvania.

74. PennEnergy owns and operates the four natural gas production facilities listed in TABLE 1, which are the same as the facilities listed in TABLE 2, located in Butler County, Pennsylvania (hereinafter collectively referred to as "Facilities" and individually as "Facility").

75. At all times relevant to this NOVOC, the entire Commonwealth of Pennsylvania has been within the Ozone Transport Region. CAA § 184(a), 42 U.S.C. § 7511c(a).

76. On October 16-18, 2018, EPA inspectors Daniel Hoyt and Katharine Owens (individually and collectively, the "Inspectors") conducted an on-site compliance evaluation inspection of the following sites to evaluate PennEnergy's compliance with the CAA and the PA SIP, including permitting requirements and applicable state and federal regulations at each site: Manuel, Baird, Renick, Fleeger 2, Klever, Fleeger, MacKrell, Shields, Frye, Kern, Gray, Bloom, Michael, Burr, Dunmire and Hamilton (the "Inspection").

77. The EPA requested information under Section 114 of the Act, 42 U.S.C. § 7414 on November 14, 2019, which PennEnergy responded to on January 21, 2020 (hereinafter "January Response").

a. Investigation Findings

78. TABLE 1 identifies the Integrated Compliance Information System (ICIS)[2] numbers and physical location coordinates for each Facility. The Physical Location is from each Facility's respective Exemption 38(b) documentation (hereinafter "E38(b) documentation") submitted to PADEP by R.E. Gas Development, LLC ("Rex Energy"), the prior owner and operator of the Facilities, and, where indicated below, by PennEnergy to PADEP, all of which PennEnergy provided to the EPA. PennEnergy purports taking ownership of the four Facilities on or around September 28, 2018 in its January Response.

TABLE 1: FACILITY ICIS NUMBER AND PHYSICAL LOCATION

Facility Name	ICIS No.	Physical Location (latitude, longitude)	County of Pennsylvania
Bloom	PA000830467	40.859099, -79.996763	Butler
Michael	PA000830466	40.835595, -79.998051	Butler
Burr	PA000830468	40.872022, -80.048682	Butler
Hamilton	PA000830460	40.858573, -80.148197	Butler

79. In its January Response, PennEnergy represented that at each Facility, emissions from the condensate storage tanks (or "CT") and produced water storage tanks (or "PT") listed in Table 2 (hereinafter collectively "Subject Storage Vessels" and individually "Subject Storage Vessel") are captured at a 100-percent efficiency rate and are controlled using Abutec 100 or Hybon CH10.0 Combustors with a 99-percent destruction and removal efficiency (DRE) rate.

80. In its January Response, Penn Energy represented 100-percent of Subject Storage Vessel emissions at the Hamilton Facility were captured by a vapor recovery unit (VRU) and routed to the sales line. PennEnergy's January Response indicates Rex Energy replaced the VRU at the Hamilton Facility with an Abutec 100 Combustor, which PennEnergy represented achieves a 99-percent DRE; however, PennEnergy did not provide the date of this equipment replacement in its January Response.

81. In its January Response, PennEnergy provided its E38(b) documentation dated November 15, 2018 in which PennEnergy represented that two new natural gas wells, 2H and 4H, were added to the Bloom Facility and that the wells were hydraulically fractured on May 14, 2018. The E38(b) documentation for the Bloom Facility also indicated a produced water storage tank was added to the Facility, and the Abutec 100 Combustor was replaced with a Hybon CH10.0

[2] ICIS-AIR is the EPA's air emission database searchable by facility name, geographic location, standard industrial classification and/or pollutant.

Combustor and a VRU. The capture efficiency of the VRU was not included in the represented controlled emissions.

82. In its January Response, PennEnergy indicates that for each Facility construction was commenced, or the Facility was modified or reconstructed, after August 23, 2011 and on or before September 18, 2015, except that Subject Storage Vessel PT #2 at the Bloom Facility was constructed or modified after September 18, 2015.

83. In its January Response, PennEnergy represented controlled VOC emissions for each Subject Storage Vessel at, or to be constructed at, each Facility, as summarized in TABLE 2.

84. In its January Response, for each combustor at each Facility, PennEnergy purported the DREs as listed in TABLE 2.

TABLE 2: SUMMARY OF DOCUMENTATION AND STORAGE VESSEL INFORMATION

Facility Name	Date of E38 Documentation Submittal	Storage Vessel Type and Identification	PTE: Uncontrolled Emissions (tpy VOC)[3]	Represented Emissions with 99% Reduction (tpy VOC)
Bloom	Dec. 29, 2015	PT #1	20	0.2
		CT #1	140	1.4
	Nov. 15, 2018[4]	PT #2	10	0.1
Michael	Feb. 11, 2016	PT #1	10	0.1
		PT #2	20	0.2
		PT #3	10	0.1
		PT #4	20	0.2
		PT #5	10	0.1
		CT #1	80	0.8
Burr	Sept. 28, 2015	PT #1	10	0.1
		PT #2	10	0.1
		CT #1	180	1.8
		CT #2	140	1.4
Hamilton	Sept. 28, 2015	PT #1	10	0.1
		PT #2	10	0.1
		CT #1	70	0.7
		CT #2	60	0.6

85. During the Inspection, at each Facility, Inspectors documented the equipment on site, noted the configuration of the vapor control system(s) and made OVA observations and used optical gas imaging (OGI), a photo-ionization detector (PID), and a digital camera to document the condition of the equipment and to detect any emissions from the equipment.

86. At the time of the Inspection, Inspectors observed that, and at all relevant times herein, each of the Facilities contained sources that emit air contaminants, including smoke, fumes, gas, odors,

[3] The EPA extrapolated uncontrolled VOC emissions from PennEnergy's represented controlled VOC emissions and purported DRE.
[4] E38(b) documentation submitted by PennEnergy, not Rex Energy.

mists, vapor and combinations thereof, into the outdoor atmosphere, and therefore each the Facilities is an "air contamination source" as that term is defined by the APCA and 25 Pa. Code § 121.1, which is subject to the requirements of the PA SIP.

87. At the time of the Inspection, Inspectors observed that all of the Facilities were similar, in that at each PennEnergy employed and operated the following equipment or components: one or more wells that produce a mixture of oil, water, and gas; a horizontal three-phase separator dedicated to each well; several 400 barrel (bbl) storage vessels in the forms of condensate storage tanks and produced water tanks, which store a combination of condensate and produced water; and a vapor combustion unit for emission control.

88. At the time of the Inspection, Inspectors observed that each of the Facilities was configured so that the vapors from all of the storage vessels at each Facility collect in the tank headspace and should route through an interconnected closed vent system to a combustion control device (*e.g.*, an enclosed combustion device (ECD)).

89. At the time of the Inspection, Inspectors observed that, at each Facility, each storage vessel and closed vent system was equipped with pressure relief devices, including thief hatches and pressure relief valves, which fully open and emit vapors when the pressure in the tanks and vapor control system exceed the equipment setpoint.

90. During the Inspection, at each Facility, Inspectors observed that PennEnergy utilizes a pressure control valve on the vapor header to the ECD to limit the flow of gas to the ECD, and that the ECD pilot was maintained using a minimal flow of gas.

91. During the Inspection, PennEnergy representatives informed Inspectors, and Inspectors observed, that the pressure control valve was set to open (allowing the flow of vapor to the ECD) when the pressure in the vapor header reaches 4 oz/in^2 at the Michael and Bloom Facilities, and 3 oz/in^2 at the Burr and Hamilton Facilities, and then to close automatically once the pressure was reduced to certain pressure to stop the flow of vapor to the ECD.

92. At the time of the Inspection, Inspectors observed that all of the Facilities were operating, that none of the Facilities had stabilizers or flash towers upstream of the storage vessels, and that the Bloom Facility was the only Facility that was utilizing a VRU to recover storage vessel vapors.

93. During the Inspection, Inspectors observed, with OVA and OGI (and PID, when reachable), significant VOCs emitting from the thief hatches on the storage vessel covers at eleven of the sixteen PennEnergy sites visited during the Inspection as follows: Manuel, Baird, Fleeger 2, Klever, Shields, Frye, Bloom, Michael, Burr, Dunmire, and Hamilton.

94. Specifically, during the Inspection, Inspectors observed, with OVA and OGI (and PID, when reachable), significant VOCs emitting from thief hatches at each Facility, to include, thief hatches on the 2H produced water tank at Bloom Facility, the 11H produced water tank at the Michael Facility, all four tanks at Burr Facility, and the two produced water tanks at the Hamilton Facility.

95. During the Inspection, Inspectors observed the condition of the emitting pressure relief devices at the Facilities and noted indications that emissions were not isolated and had been occurring for a

considerable amount of time, such as buildup of debris or residue around the produced water tank 2 thief hatch at the Bloom Facility, and tags attached to the thief hatches on the tanks at the Burr, Hamilton, and Michael Facilities indicating the emissions had been previously detected.

96. In its January Response, PennEnergy's leak detection and repair (LDAR) program inspection records indicated a history of significant and recurring VOC emissions detected from pressure relief devices on closed vent systems as follows:

a. At the Burr Facility, Rex Energy detected VOC emissions coming from the thief hatches on all four storage vessels on April 17, 2017. PennEnergy subsequently replaced these four thief hatches on October 23, 2018 and reported on November 1, 2018 that VOC emissions had ceased from the four thief hatches;

b. At the Bloom Facility, Rex Energy detected VOC emissions coming from the thief hatches on two of the three storage vessels on May 18, 2017. Rex Energy subsequently replaced these two thief hatches on June 19, 2018 and PennEnergy reported on July 12, 2018 that VOC emissions had ceased from the two thief hatches;

c. At the Bloom Facility, PennEnergy detected VOC emissions coming from the thief hatches on all three storage vessels and from two pressure relief valves on the storage vessels' closed vent system on March 8, 2019;

d. At the Hamilton Facility, Rex Energy detected VOC emissions coming from the thief hatches on all four storage vessels (two oil and two produced water) using OGI on July 12, 2017. PennEnergy subsequently replaced these four thief hatches on October 24, 2018 and reported on November 1, 2018 that VOC emissions had ceased from the four thief hatches. Then, on September 10, 2019, PennEnergy detected VOC emissions coming from a pressure relief valve on the storage vessels; and

e. At the Michael Facility, Rex Energy detected VOC emissions coming from the thief hatches on all six storage vessels on August 24, 2017. PennEnergy subsequently replaced these six thief hatches on October 22, 2018 and reported on November 1, 2018 that VOC emissions had ceased from the six thief hatches.

b. Emissions Determination for Storage Vessels

97. Based upon the investigation findings in Paragraphs 78 through 96, each Subject Storage Vessel was constructed after August 23, 2011 had a potential VOC emissions rate of equal to or greater than 6 tpy and is not subject to a legally and practically enforceable limit on potential VOC emissions in an operating permit or other requirements established under federal, state, local, or tribal authority; therefore, each Subject Storage Vessel is a "storage vessel affected facility" as that term is defined under NSPS Subpart OOOO or OOOOa and is subject to various requirements, including the VOC standards for storage vessel affected facilities at 40 C.F.R. §§ 60.5395 and 60.5395a.

98. Based on the investigation findings, PennEnergy's Facilities are not in compliance with the storage vessel cover requirements of 40 C.F.R. § 60.5411(b) or 60.5411a(b), as appropriate, because the Subject Storage Vessels' covers and/or openings on the storage vessel covers do not

form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessels as required by 40 C.F.R. §§ 60.5411(b)(1) and 60.5411a(b)(1), the storage vessel cover openings are not secured as required by 40 C.F.R. §§ 60.5411(b)(2) and 60.5411a(b)(2), and/or the storage vessel thief hatches are not maintained and operated to ensure that the lid remains sealed and seated under normal operating conditions, including such times when working, standing/breathing, and flash emissions are generated, as required by 40 C.F.R. §§ 60.5411(b)(3) and 60.5411a(b)(3).

99. Based on the investigation findings, PennEnergy's Facilities are not in compliance with the closed vent system requirements of 40 C.F.R. § 60.5411(c) or 60.5411a(c), as appropriate, because the Subject Storage Vessels' closed vent systems are not designed to route all gases, vapors, and fumes emitted from the material in the storage vessels to a control device or to a process as required by 40 C.F.R. §§ 60.5411(c)(1) and 60.5411a(c)(1), and the closed vent systems are not designed and operated with no detectable emissions, as determined using OVA inspections as required by 40 C.F.R. §§ 60.5411(c)(2) and 60.5411a(c)(2).

100. Because the Subject Storage Vessels are not in compliance with the cover and closed vent system requirements of 40 C.F.R. § 60.5411(c) or 60.5411a(c), as appropriate, PennEnergy is not demonstrating continuous compliance with performance requirements as required by 40 C.F.R. §§ 60.5415(e)(3)(ii) and 60.5415a(e)(3)(ii).

101. Because the Subject Storage Vessels are not in compliance with the cover and closed vent system requirements of 40 C.F.R. § 60.5411(b) and (c) or 60.5411a(b) and (c), as appropriate, all VOC emissions from each of the Subject Storage Vessels, including those routed to a VRU, must be included when determining potential VOC emissions, as required by 40 C.F.R. §§ 60.5365(e) and 60.5365a(e).

102. The uncontrolled emissions and control device DRE represented by PennEnergy, as listed in TABLE 2, indicate that, for the Subject Storage Vessels, routing emissions to a control device or process is necessary to meet the VOC emissions reduction requirements of 40 C.F.R. §§ 60.5395(d)(l) and 60.5395a(a)(2).

103. Because the Subject Storage Vessels are not in compliance with the cover and closed vent system requirements of 40 C.F.R. § 60.5411(c) or 60.5411a(c), as appropriate, and PennEnergy is not demonstrating continuous compliance with performance requirements as required by 40 C.F.R. §§ 60.5415(e)(3)(ii) and 60.5415a(e)(3)(ii), PennEnergy is not demonstrating continuous compliance the VOC emissions reduction specified in § 60.5395(d) as required by 40 C.F.R. §§ 60.5415(e)(3)(i) and 60.5415a(e)(3)(i).

c. Annual Reports and Recordkeeping Review

104. As discussed in Paragraph 97, above, each Subject Storage Vessel is subject to NSPS Subpart OOOO or OOOOa, as appropriate.

105. Based on investigation findings and upon review of CEDRI and EPA and PADEP records, as of the date of this NOVOC, PennEnergy has never submitted certified NSPS Subpart OOOO or OOOOa annual reports for the Subject Storage Vessels as required by 40 C.F.R. §§ 60.5420(b) and 60.5420a(b).

d. Emissions Determination for Facilities

106. Based upon the investigation findings and Paragraphs 73 through 77, each of PennEnergy's Facilities has the VOC PTE of over 50 tpy and is located in Pennsylvania, and, therefore, is a "Title V facility" and a "major facility" as those terms are defined by the Act and Subchapter G of Title 25 of the Pennsylvania Code for ozone transport regions and subject to the permitting requirements of Subchapters E, F and G of Title 25 of the Pennsylvania Code. 25 Pa. Code §§ 127.201, 127.203a, 127.402(a) and 127.501.

107. Based upon the investigation findings, PennEnergy's Facilities are not operating under permits issued by PADEP as required by 25 Pa. Code §§ 127.402(a) and 127.501.

III. VIOLATIONS

COUNT I: Violation of 40 C.F.R. § 60.5395(d)(1), (e)(1) and (g) or 60.5395a(a)(2), (b)(1) and (d) for failure to comply with the storage vessel requirements for oil storage vessel covers of section 60.5411(b) or 60.5411a(b) and the requirements that closed vent system requirements are designed and operated to route oil storage vessel emissions to a control device or process as specified in section 60.5411(c) or 60.5411a(c).

108. As discussed in the Emissions Determination for Storage Vessels section, each Subject Storage Vessel is a storage vessel affected facility under NSPS Subpart OOOO or OOOOa and subject to the VOC standards for storage vessel affected facilities at 40 C.F.R. § 60.5395 or 60.5395a.

109. NSPS Subparts OOOO and OOOOa require owners and operators of storage vessel affected facilities to reduce emissions by 95.0 percent according to a specified schedule. 40 C.F.R. §§ 60.5395(d) and 60.5395a(a)(2).

110. NSPS Subparts OOOO and OOOOa require that if the owner or operator of a storage vessel affected facility uses a control device to reduce VOC emissions from a storage vessel affected facility, the owner or operator must equip the storage vessel with a cover connected to a closed vent system and route emissions to a control device or process that meets the requirements of 40 C.F.R. §§ 60.5395(e) and 60.5395a(b), specified below:

    a. The cover and all openings on the cover shall meet the requirements of 40 C.F.R. §§ 60.5411(b) and 60.5411a(b);

    b. The closed vent system shall meet the requirements of 40 C.F.R. §§ 60.5411(c), 60.5411a(c) and 60.541la(d); and,

    c. The control device shall meet the requirements of 40 C.F.R. §§ 60.5412(c) and 60.5412(d), and 60.5412a(c) or 60.5412a(d).

111. NSPS Subparts OOOO and OOOOa require owners and operators of storage vessel affected facilities to demonstrate continuous compliance as specified in 40 C.F.R. §§ 60.5415(e)(3) and 60.5415a(e)(3). 40 C.F.R. §§ 60.5395(g)(2) and 60.5395a(d)(2).

112. As discussed in Investigation Findings section, above, PennEnergy asserts that it routes all of the captured VOC emissions from the Subject Storage Vessels to an enclosed combustor with a DRE of 99 percent.

113. As discussed in the Investigation Findings section, above, Inspectors observed VOC emissions coming out of the thief hatches on the storage vessel covers of each Subject Storage Vessel.

114. As discussed in the Investigation Findings section, above, for each Subject Storage Vessel, Inspectors checked the condition of the emitting pressure relief devices and noted indications that venting was not isolated and had been occurring for a considerable amount of time, such as tags attached to the thief hatches indicating the emissions had been previously detected, corrosion, condensation, or buildup of debris or residue on the equipment, and/or PennEnergy's Subject Storage Vessel inspection records indicated prior pressure relief device leaks.

115. As discussed in the Emissions Determination for Storage Vessels section, above, the observed VOC emissions identified in Paragraphs 93 through 96, indicate that PennEnergy is not in compliance with the storage vessel cover requirements of 40 C.F.R. § 60.5411(b) or 40 C.F.R. § 60.5411a(b) because its Subject Storage Vessels' covers and/or openings on the storage vessel covers (e.g., access hatches, sampling ports, pressure relief devices, or gauge wells) do not form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessels as required by 40 C.F.R. §§ 60.5411(b)(1) and 60.5411a(b)(1), the storage vessel cover openings are not secured as required by 40 C.F.R. §§ 60.5411(b)(2) and 60.5411a(b)(2), and/or the storage vessel thief hatches are not maintained and operated to ensure that the lid remains sealed and seated under normal operating conditions, including such times when working, standing/breathing, and flash emissions are generated, as required by 40 C.F.R. §§ 60.5411(b)(3) and 60.5411a(b)(3).

116. As discussed in the Emissions Determination for Storage Vessels section, above, the observed VOC emissions identified in Paragraphs 93 through 96, indicate that PennEnergy is not in compliance with the closed vent system requirements of 40 C.F.R. § 60.5411(c) or 40 C.F.R. § 60.5411a(c) because the Subject Storage Vessels' closed vent systems are not designed to route all gases, vapors, and fumes emitted from the material in the storage vessels to a control device or to a process as required by 40 C.F.R. §§ 60.5411(c)(1) and 60.5411a(c)(1), and the Subject Storage Vessels' closed vent systems are not designed and operated with no detectable emissions, as determined using OVA inspections as required by 40 C.F.R. §§ 60.5411(c)(2) and 60.5411a(c)(2).

117. As discussed in the Emissions Determination for Storage Vessels section, above, because PennEnergy is not in compliance with the continuous compliance demonstration requirement of 40 C.F.R. §§ 60.5415(e)(3)(ii) and 60. 5415a(e)(3)(ii) and the cover and closed vent system requirements of 40 C.F.R. §§ 60.5411(b) and (c) and 60.5411a(b) and (c) at its Facilities, all emissions from each of the Subject Storage Vessels, including those emissions recovered by a VRU or routed to a control device, must be included when determining potential emissions, as required by 40 C.F.R. §§ 60.5365(e) and 60.5365a(e).

118. Therefore, the Subject Storage Vessels are not reducing VOC emissions by 95.0 percent, as required by 40 C.F.R. §§ 60.5415(e)(3)(i), 60.5415a(e)(3)(i), 60.5395(d)(1) and 60.5395a(a)(2).

COUNT II: Violation of CAA § 502(a) and 25 Pa. Code § 127.402(a) for Failure to Obtain an Operating Permit

119. As discussed in the Emission Determination for Facilities section, above, each of PennEnergy's Facilities is a major facility and a Title V facility under the Pennsylvania Code and subject to the permitting requirements of Subchapters E, F, and G of Title 25, Chapter 127 of the Pennsylvania Code. 25 Pa. Code §§ 127.201(a), 127.203a, 127.402, 127.501.

120. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), prohibits the operation of a major source, or a source required to have a permit under the Plan Requirements for Nonattainment Areas of Part D of Title I of the Clean Air Act, 42 U.S.C. §§ 7501-7515, except for in compliance with a permit issued by a permitting authority under Title V of the CAA.

121. Subchapter E of Title 25, Chapter 127 of the Pennsylvania Code, 25 Pa. Code §§ 201-218, sets forth the NSR program, prohibiting a person from causing or permitting the construction or modification of an air contamination facility within an ozone transport region that emits or has the potential to emit at least 50 tpy of VOC without compliance with permitting, LAER, and emissions offsetting requirements. 25 Pa. Code §§ 127.201(a), 127.203(a), 127.205.

122. Subchapters G and F of Title 25, Chapter 127 of the Pennsylvania Code, 25 Pa. Code §§ 127.401-127.543, set forth an operating permit program that prohibits a person from operating an air contamination source without PADEP authorization and requires owners and operators of a Title V facility to obtain an operating permit that meets additional requirements. 25 Pa. Code §§ 127.402(a), 127.501, 127.502, 127.503.

123. As discussed in the Emissions Determination for Facilities section, above, PennEnergy failed to obtain operating permits through the processes required under Subchapters E, F, and G of Title 25, Chapter 127 of the Pennsylvania code for its Facilities in violation of CAA § 502(a), 42 U.S.C. 7661a(a), and 25 Pa. Code §§ 127.402, 127.501.

COUNT III: Violation of 40 C.F.R. § 60.5370(b) or 60.3070a(b) for Failure to Properly Maintain and Operate Storage Vessel Affected Facilities

124. As discussed in the Emissions Determination for Storage Vessels section and Paragraph 108, above, the Subject Storage Vessels are storage vessel affected facilities and subject to NSPS Subpart OOOO or OOOOa, as appropriate.

125. NSPS Subparts OOOO and OOOOa require that, at all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. 40 C.F.R. §§ 60.5370(b) and 60.5370a(b).

126. As set forth in Counts I and II, above, PennEnergy failed to maintain and operate the Subject Storage Vessels and associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions in violation of 40 C.F.R. § 60.5370(b) or 60.5370a(b).

COUNT IV: Violation of 40 C.F.R. § 60.5420(b)(1) and (6) or 60.5420a(b)(1) and (6) for failure to submit required annual reports for each storage vessel affected facility.

127. As discussed in the Emissions Determination for Storage Vessels section and Paragraph 108, above, the Subject Storage Vessels are storage vessel affected facilities and subject to NSPS Subpart OOOO or OOOOa, as appropriate.

128. NSPS Subparts OOOO and OOOOa require the submittal of certified annual reports to the EPA containing information on each storage vessel affect facility with initial annual reports due no later than 90 days after the end of the initial compliance period and subsequent reports due no later than the same date as the initial annual report each year thereafter. 40 C.F.R. §§ 60.5420(b) and 60.5420a(b).

129. As discussed in the Annual Reporting and Recordkeeping Review section, above, PennEnergy failed to submit annual reports containing information on each Subject Storage Vessel in violation of 40 C.F.R. § 60.5420(b) or 60.5420a(b).

IV. ENFORCEMENT PROVISIONS

130. Section 113(a)(1) and (3) of the CAA, 42 U.S.C. § 7413(a)(1) and (3), provides that whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of, any requirement of prohibition of an applicable SIP or other provision of the CAA, the Administrator has several enforcement options to resolve these violations.

131. Pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), as amended by the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 and the Debt Collection Improvement Act, 31 U.S.C. § 3701 and 40 C.F.R. § 19.4, EPA may initiate a judicial enforcement action for a permanent or temporary injunction, and/or for a civil penalty of up to $102,638 per day for violations of the CAA that occurred after November 2, 2015.

132. The issuance of this NOVOC does not in any way limit or preclude the EPA from pursuing additional enforcement options concerning inspections or review referenced in this NOVOC. This NOVOC does not preclude enforcement action for violations not specifically addressed in this NOVOC.

133. The EPA is extending to PennEnergy an opportunity to advise the EPA, via a conference call, or in writing, of any further information the EPA should consider with respect to the alleged violations. Please reply, or if you have obtained an attorney have the attorney reply, within ten (10) calendar days following receipt of this letter to Erin Grisby, Attorney-Advisor, at (202) 564-3701 or grisby.erin@epa.gov as to whether PennEnergy would like to schedule such a conference. EPA may pursue enforcement options if there is no response to this NOVOC.

08/16/2021
Date

Melvin, Karen
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Date: 2021.08.16 13:19:22 -04'00'

Karen Melvin, Director
Enforcement & Compliance Assurance Division